

 $\label{eq:continuous} \begin{tabular}{ll} Additional chart coverage may be found in CATP2, Catalog of Nautical Charts. \\ SECTOR $1 --- CHART INFORMATION \\ \end{tabular}$

SECTOR 1

THE SUEZ CANAL AND SUEZ BAY

Plan.—This sector describes the Suez Canal and Suez Bay, and is divided into nine parts. Parts A through G contain information for transiting the canal. Part H contains a general description of the Suez Canal, its ports, and Suez Bay. Part I describes the anchorage areas available to vessels transiting the canal and associated areas.

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Part A. General Remarks

1.1 The Suez Canal connects the Mediterranean Sea with the Gulf of Suez, and thence with the Red Sea. The canal is 105 miles long. Proceeding S from Port Said, it runs in an almost undeviating straight line to Lake Timsah. It then cuts to the Great and Little Bitter Lakes, which is now a single body of water, and then S again past the city of Suez to reach the Gulf of Suez at Port Taufiq. The canal has no locks and can accommodate very large vessels. Widened and deepened over the years, it now is capable of accommodating ships with a maximum draft of 16.2m. Transit time averages about 15 hours

The canal is open to vessels of all nations that comply with the conditions stated in the present rules of navigation. All references and circulars, which constitute an integral part of the rules, are issued by the Suez Canal Authority (SCA), Vessels must comply with the provisions of the International Regulations for International Convention for the Safety of Life at Sea and its amendments, the International Convention for Prevention of Pollution from ships, as well as the provisions of the International Regulations for Preventing Collisions at Sea, and all laws, orders, and regulations issued by the Egyptian Government.

The Suez Canal Authority reserves the right to refuse access to the canal waters, or order the towage or convoy of vessels considered dangerous or troublesome to navigation in the canal.

By the sole fact of using the canal waters, Masters and owners of vessels bind themselves to accept all the conditions of the present rules of navigation, with which they acknowledge being acquainted with, to conform with these conditions in every respect, to comply with any requisition made with a view to their being duly carried out, and to adhere to the Suez Canal Authority private Code of Signals.

Up-to-date information is available from the Suez Canal Authority (SCA) or an approved agent.

Every vessel, other than a warship, intending to transit the canal, or staying at Port Said (Bur Said) or Port Suez, or within the limits of the Suez Canal basins or dock, must be represented by an agent and must be approved by the Suez Canal Authority.

Warships intending to transit the canal should pass their request for booking via diplomatic channels, through the Ministry of Foreign Affairs, the Ministry of Defense, and/or the Ports and Lights Administration.

Canal Waters mean the canal proper, and the access channels there to, the waters within the Suez Canal Authority concession adjacent to the canal proper, Port Said Harbor, and Port Suez.

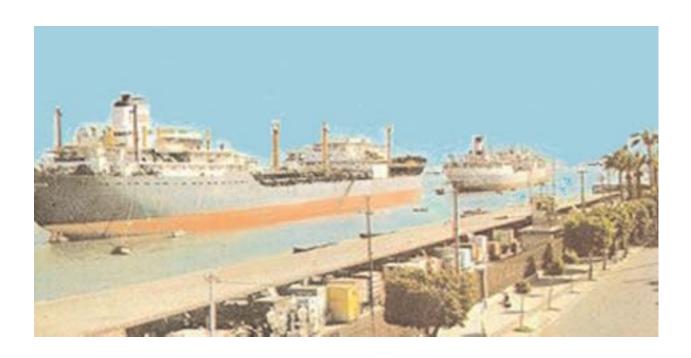
The length of the canal proper runs from Km 3.710, West Branch, for vessels entering from Port Said Harbor, and from Km 1.333, East Branch, for vessels entering through the East Approach Channel to Hm 3 at Suez. Included are the two channels of El-Buheira El-Murra El-Kubra (Great Bitter Lake) and all canal by-passes.

The width of the canal is bounded by two banks when they are immerged; if the banks are submerged, the width of the canal is limited to the perpendiculars at the point of intersection of the submarine bank with the horizontal plane corresponding to the maximum draft authorized, including squat.

The maximum permitted beam is 74.67m, with no restrictions on a vessel's length. Vessels in ballast, with a beam up to 74.67m and drafts up to 9.75m forward and 11m, aft will be permitted to transit.

Vessels with a beam in excess of 64m and with similar drafts will only be permitted to transit in calm conditions with a beam wind of 10 knots or less.

Vessels with a beam greater than 74.67m may be permitted to transit under special SCA conditions. Vessels with a beam greater than about 71m may be allowed to transit the canal by special request.



Suez Canal Transit

The actual draft a vessel may possess while in the canal is dependent upon the convoy the vessel is a member of, the vessel's beam, and the intended speed of transit.

Vessels permitted by the Maximum Draft Tables to transit the Suez Canal, at a draft of between 15.2 and 17.6m, must carry out a satisfactory sea trial at Bur Said Roads or at Port Suez before making their first passage at that draft.

Except for the areas noted on the chart, the canal was dredged to a depth of 20.5m in 1994. A typical cross-section of the canal shows a channel width of 119m between about the 20m curves. However, areas with a width of 104m are listed in the SCA Rules of Navigation.

Transiting the Suez Canal

1.2 The tables given below are extracts from the Beam/ Draft Tables available from the Suez Canal Authority or the vessel's agent.

Drafts for vessels in ballast transiting N or S are, as follows:

Beam (up to)	Draft	
Deam (up to)	Forward	Aft
74.6m	9.75m	11m

The maximum draft for loaded vessels transiting N or S is, as follows:

Beam (up to)	Draft
53.04m	16.05m
53.64m	15.87m
54.25m	15.66m

Beam (up to)	Draft
54.86m	15.51m
55.47m	15.34m
56.08m	15.15m
56.69m	15.00m
57.30m	14.75m
57.91m	14.40m
58.52m	14.07m
59.13m	13.77m
59.74m	13.41m
60.35m	13.07m
60.96m	12.72m

Plans were in effect to increase the width of the canal by 50m. Reports have indicated that the N section of the canal has been completed.

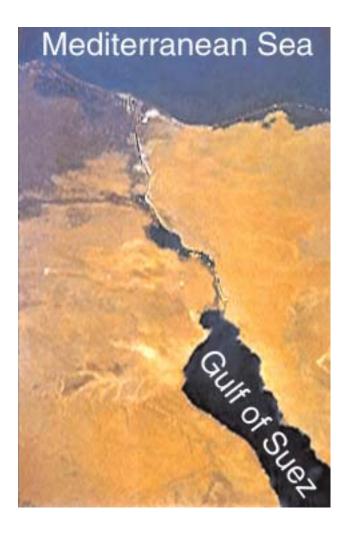
It is virtually impossible to completely transit the canal during daylight hours. The average transit time is 11 to 14 hours, anchoring time included.

Sections of the canal have been doubled for one-way traffic, which makes for a faster transit time.

At times, however, vessels may be instructed to tie up to mooring bollards located on both banks of the canal.

Additionally, in the vicinity of the 10m curve, it is marked at various intervals by lighted beacons with the following characteristics:

1. East side of channel—white oval topmark with green border, exhibiting a green fixed light.



Suez Canal

- 2. West side of channel—white oval topmark with red border, exhibiting two red fixed lights.
- 3. Junctions—oval topmark with red and black bands, exhibiting a white flashing light.
- 4. Boundary between adjacent channels in El-Buheira El-Murra El-Kubra (Great Bitter Lake)—yellow X-shaped topmark, exhibiting a yellow fixed light.

Tidal buoys which show the direction of flow of the water are painted, as follows:

- 1. Downstream side—red and white bands, with one reflector.
- 2. Upstream side—black and white stripes, with two reflectors

Therefore, a vessel heading against the flow of water will see a buoy with red and white bands and one reflector. It has been reported that the tidal buoys are no longer present in the canal.

To conform to international convention, the Local Direction of Buoyage is the direction taken by the mariner when approaching the canal from seaward.

In view of the double-ended nature of the canal, there is a point at which the buoyage direction has been reported to be reversed. This is at Km 4.0 and Km 2.8E, in approximate

latitude 31°13.5'N. To the N of these positions (in Port Said harbor and approaches), the port hand buoys are on the E side of the channel and starboard to the W. To the S of these positions, the buoyage is reversed.

The canal's W bank is marked by kilometer posts numbered from Port Said High Light S. From Buheiret El-Timsah (Lake Timsah) S, the markings are in Arabic numerals.



Swing Bridge

However, it has been reported that all kilometer posts from Port Said High Light to the port of Suez are marked in English numerals

Where there are two channels, the suffix "E" is used to denote that the position referred to is in the Eastern Channel, e.g. Km 5.6E.

Positions along the approach channels are described by their distance along the channel in Hectometers (Hm) from the origin of the Sea Channel.

Åt Port Said, Hm 0.0 is Km 0.0. At Bur el Suweis, Hm 0.0 is Km 162.25.

In the pilotage of a vessel in Suez Canal, the main point requiring attention is the speed, which by Suez Canal Authority regulation is normally 7.5 knots. Each vessel has a speed suitable to her size at which it steers best.

If a vessel that normally handles well steers badly in the canal, it is probable that its speed is wrong, which should be adjusted accordingly.

In passing from a wide into a narrower portion of the canal, it will be necessary to reduce speed in order to maintain good steering.

It should also be noted that there is a certain speed attainable by each vessel in the canal which will not be exceeded no matter how much the speed of the engines is increased. This is owing to the large displacement of water as compared with the width and depth of the canal and, of course, does not affect a vessel so much in the lakes.

When passing through a curve in the canal, the greatest caution is necessary in very long vessels; there should be a tug towing ahead and the engines should be stopped or going as slowly as possible. Particular attention is required, especially in a vessel with twin screws, to the proximity of the propeller to the banks

In passing a canal dredge hauled to the bank or a vessel moored to a gare (places where the canal was widened to enable a vessel to secure to the bank so that another might pass) or in a bypass, great caution is required.

The speed should be very slow, for at even a moderate speed the reaction of the waves caused by the passing vessel is liable to carry away the hawsers of the stationary vessel, which might then foul the passing vessel.

The closest attention is required to the steering so that only a small amount of helm is used. Hand steering only is to be used while in the canal. Use of the vessel's gyro pilot is prohibited.

The canal banks are not always symmetrical to the center of the dredged channel marked by buoys and unevenness in the banks may also affect the vessel's steering. The pilot's advice is therefore essential to keep the vessel in the center of the channel.

When the wind blows across the canal, care must be taken to prevent the vessel drifting to leeward. It is better to stop and secure to the bollards than to risk damaging the propeller by using it near the lee bank, this being the only serious damage vessels are liable to sustain in transiting the canal.

Similarly, with a wind abeam, care is required in getting underway after mooring to the bank.

Between Port Said and El-Buheira El-Murra El-Kubra (Great Bitter Lake), tidal currents may reach 1 knot; however, it can reach 2 knots with strong prevailing winds. Peak currents occur about 50 minutes after predicted HW and LW at Port Said.

The duration and velocity of currents in the part of the canal are greatly affected by the relative mean sea levels between the Mediterranean Sea, the Bitter Lakes, and the Red Sea.

In summer, between July and October, the mean sea level at Port Said is slightly higher than that of the Bitter Lakes.

This difference, coupled with evaporation in the Bitter Lakes, causes the predominance of the S current.

In winter, between December and May, the mean sea level at the Bitter Lakes is slightly higher than that of Port Said. This difference causes the predominance of the N current. The lakes along the canal have an important role in dampening the effects of sudden meteorological changes.



Suez Canal Authority at Port Said

Between Port Suez and the Bitter Lakes, the N current is called the flood; the S current is called the ebb. Peak currents occur about 50 minutes after HW and LW at Port Tewfik.

At the entrance to the canal, at Km 159, the flood starts at an average of 3 hours after LW at Suez; the ebb starts 3 hours after HW at Suez. Usually in summer, the duration of the ebb exceeds 6 hours. In winter, the flood dominates. The ebb is prolonged by strong NW winds; the flood by strong S winds.

In the S part of the canal, the current averages 1.5 knots and 2.5 knots at springs and are rather strong and uniform.

Six meteorological stations span the canal and information concerning local weather will be passed to vessels from the pilots.

It has been reported that fog, sometimes limiting visibility to 91m, may be encountered transiting the canal.

Part B. Suez Canal Vessel Traffic Management System

- 1.3 The Suez Canal Vessel Traffic Management System (SCVTMS) is a system for ensuring safety of transit in the canal as well as increasing the numerical capacity. The system offers the following services, which includes continuous monitoring of a vessel's position, speed, off-track, and space between vessels, by means of computerized tracking radars (at Port Said, Port Tewfik, and El-Buheira El-Murra El-Kubra (Great Bitter Lake)):
 - 1. A Loran-C network covering the canal and its approaches.
 - 2. A voice communication network that enables direct communication between pilots and movement centers.
 - 3. Computerized data base containing vessels particulars and transit requirements.

At Port Tewfik or Port Said, the radar coverage extends about 19 miles offshore.

Vessels approaching the canal, from either end, should call the respective harbor office on the frequencies listed in Part C, Suez Canal Signals.

Vessels calling the harbor office for the first time should give the international call sign and Suez Canal file number. The file number will enable the SCA to retrieve information on the vessel from the data base.

Approaching the roads, vessels are requested to call the harbor office declaring thier international call sign.

The harbor office tracks the vessel as long as the pilot is aboard. On entering the canal, special Loran-C receiver/ transmitters will be taken on board each vessel as she enters the canal. The carry-on receiver transmitter (CORT) will fix the ship's position from the shore-based transmitters' coded pulses by time-difference measurements.

The information is continuously sent by the CORT to Ismailia Center, where it is used to calculate yhe vessel's speed, position, off-track and distance between other vessels. The CORT should be mounted on the vessels W wing. A trained technician will mount and dismount the CORT.

Vessels will be tracked both by radar and Loran C in the Great Bitter Lake Area and by television, which covers the canal and is controlled from Ismailia.

On approaching either end of the canal, the respective harbor office will be handed the responsibility of follow-up as the vessel proceeds to sea.

Vessels should observe the radio reporting points listed under the "Information to be passed to the SCA on arrival" topic in Part E, Suez Canal Transit Requirements.

It has been reported that the CORT system is no longer in use.

Part C. Suez Canal Signals

1.4 The Suez Canal Authority (SCA) prescribes the signals, both visual and sound, for use at Port Said and in the Suez Canal.

The manual that contains these signals, Rules of Navigation, Part III, Communications—Signals, is held by the pilot for use by the master of the vessel.

All flags and pendants referred to, and many of the signals referenced, are those used in the International Code of Signals (see Pub. 102).

Night signal lights shall be hoisted at the foremast head or where best seen by other vessels. Excerpts from the SCA manual (Rules of Navigation—Part III) are given below. The following pilotage signals are displayed in the day and at night:

Day	Night	Meaning
Flag G under a black ball	Three white lights in a vertical line	I require a pilot

If proceeding from port to sea, or for changing berths, this signal is to be raised 30 minutes before departure from the dock.

If transiting the canal, the signal should be hoisted about 2 hours before the first vessel enters the canal.

The following aground signals are used by vessels, as needed:

Day	Night	Meaning	
Black ball above Pendant No. 2 at masthead	Red light at masthead	Vessel aground. Passage clear for tugs	
Black ball above Pendant No. 2 above Flag N	Two red lights vertically disposed	Vessel aground. Passage not clear for tugs	

The following are convoy signals that are to be used by vessels:

Day	Night	Meaning
Flag Z	Green light over white light hoisted on sig- nal halyard	Last vessel in convoy
Pendant No. 2 at masthead	Two white lights vertically disposed	The vessel is making fast

The following special signals are used by certain vessels in ports and in the canal:

Day	Night	Meaning	
Flag B over one ball	Two red lights over white lights	Tanker carrying bulk petroleum (flash point between 23° and 49°C)	
One ball over Flag B	White light over two red lights	Vessels carrying explosives	
Flag B between two balls	Three red lights	Vessels vertically carrying bulk petro- leum (flash point below 23°C)	
Flag F between two balls	Four red lights vertically	Vessels carrying radioactive substances	

It is to be noted that when the vessel is made fast in the canal the white lights aft to be replaced by a red stern light.

Day	Night	Meaning	
Pendant No. 2 above answering pendant	Red light be- tween two white lights, vertically disposed	Vessel moving vol- untarily, or vessel not ready	
Pendant No. 2 at masthead	White light above red light	Vessel is maneuver- ing to get underway in the canal	

The only sound signals allowed in Suez Canal and at Port Said are, as follows:

- 1. The sound signals laid down in the International Regulations for Preventing Collisions at Sea.
- 2. Five or six short blasts repeated at short intervals—I am reducing speed and may have to stop or make fast.
 - 3. One prolonged blast—to attract attention.
 - 4. Other sound signals as laid down in the SCA manual.

Vessels approaching the canal are required to observe radio reporting points and pass certain information to the appropriate harbor office when approaching the canal. See Part E for details.

Vessels approaching the roads should also contact the appropriate harbor office. Vessels intending to maneuver within the canal or its approaches without a pilot aboard should contact "SUQ" and request permission to do so.

Vessels must have their radio gear in good working order prior to transiting the canal.

They must also be fitted with a VHF set capable of being operated from the bridge with a frequency range of 156 to 174 MHz (channels 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 71, 73, and 74).

If not they may rent a VHF set from the SCA. Vessel to tug communications are usually on UHF.

Vessels approaching from seaward make contact, as follows:

Contact	Call sign	VHF channel	
Port Said			
Port Management	HP1	16	
Pilot Vessel and Radar Guidance:			
Outside harbor	HP2	12	
Inside harbor	HP3	13	
Port Suez			
Port Management	HP1	16	
Pilot Vessel and Radar Guidance:			
Outside harbor	HP2	11	
Inside harbor	HP3	14	

The Suez Canal Authority Ismailia may be contacted directly through "SUQ."

Masters shall place their communications equipment at the disposal of the Suez Canal Authority during transit of the Canal.

Pilots shall be allowed to receive and send all service messages which may be deemed necessary, free of charge, to the Suez Canal Authority.

Radio watches will be kept as directed by the pilot and it may even be required that a continual watch be kept during transit of the canal.

Part D. Suez Canal Navigation Regulations

1.5 Suez Canal Navigation Regulations will be found in the manual Rules of Navigation (Part I), published by the Suez Canal Authority (SCA). A copy of these rules is held by the pilot for the masters use. It has been reported (1998) that vessels must request the pilot bring a copy of the Suez Canal Navigation Regulations in their Advance Notification of Transit message.

Masters are bound to make themselves well-acquainted with these regulations as a condition of passage through the canal; the excerpts which follow may be of use to vessels approaching the canal.

Transit through the Suez Canal is open to vessels of all nations, subject to their complying with the conditions set down in the Rules of Navigation. The SCA reserves the right to refuse access to canal waters or order the towage or convoying of vessels considered dangerous or troublesome to navigation in the canal.

By the sole fact of using the canal (i.e., Suez Canal, Port Said harbor and access channels, etc. within the SCA's concession), Masters and owners of vessels bind themselves to accept all the conditions of the present Rules of Navigation, with which they acknowledge being well acquainted, to conform with these conditions in every respect, to comply with any requisition made with a view to their being duly carried out, and to adhere to the SCA's private Code of Signals.

When in canal waters, any vessel or floating structure of any description is responsible for any damage and consequential loss it may cause either directly or indirectly to the SCA without option for the owners and/or operators to release themselves from responsibility by purely and simply abandoning the vessel, floating structure, or wreck.

Vessels carrying petroleum or dangerous cargo must comply with these regulations and also with the Rules of Navigation and the Appendix for Vessels Carrying Dangerous Cargo, a copy of which is given to masters on their arrival at the canal.

The following vessels will not be allowed to transit the canal:

- 1. Any vessel considered by the SCA to be dangerous to navigation.
- 2. Vessels carrying dangerous cargo not conforming to the Appendix of Rules to Navigation for vessels carrying same.
 - 3. Vessels having a list of more than 3°.
- 4. Vessels trimmed in such a way as to cause poor maneuverability.
- 5. Vessels with deck loads protruding so as to endanger the safety of transit.
- 6. Vessels loaded in such a manner so as to impair stability.
 - 7. Vessels whose draft is in excess of that permitted.
- 8. VLCCs or ULCCs if there is a strong wind (a beam wind of over 10 knots).

Movement of vessels.—Entering or moving within canal waters without the approval of the SCA and a pilot aboard is prohibited. With the SCA's approval, and when a pilot is unable to board or is unavailable, vessels may sail, as follows:

- 1. For sea, if leaving a Southbound Convoy.
- 2. For sea, if leaving a Northbound Convoy by East Port Said Channel.
- 3. For sea, if leaving Port Said Harbor by the West Approach Channel.
- 4. For sea, if proceeding from Port Suez, a convoy anchorage, or from sea, or if sailing from the Southbound Convoy Waiting Area to the Port Suez anchorages.
- 5. From sea, if entering Port Said Harbor for canal transit or berthing through West Approach Channel.
- 6. From the VLCC Anchorage Area to the canal via Port Said East Approach Channel.
- 7. From New Anchorage Area S of Conry Rock for the Northbound Convoy.
 - 8. For the canal, from the Port Suez anchorages.
- 9. From sea, if bound for the Port Suez anchorages. The SCA will assign the vessel an anchorage berth.

When several vessels are ready to get underway at the same time, the order of sailing will be set by the SCA. The SCA will prescribe the movements of vessels under way in order to ensure the maximum safety to navigation.

Consequently, no vessel may demand immediate passage through the canal, and no claim for delay arising from the foregoing causes can be admitted. Masters must avoid anchoring in the canal, except in case of absolute necessity.

Navigation of sailing craft of every description by night is entirely forbidden. During night transit, vessels must keep their searchlight on. They must show their regulation lights and keep a man on the lookout forward. Vessels not provided with searchlights and having no means to use hired ones from shore are only allowed to transit at night in exceptional circumstances, escorted by tugs, with the master being entirely responsible.

Vessels going through the canal under these conditions are subject to all the other rules for night transit.

In canal waters, sounding the steam whistle is only allowed as laid down in the signal section. Boats, other than the SCA's own, are not allowed to come alongside vessels which are underway or maneuvering, except the following at their own risk, which include quarantine and police boats, mooring boats, and the ship's agent's boat.

Prohibitions.—The following prohibitions are hereby notified to masters:

- 1. Allowing any shots to be fired.
- 2. Taking boats or floating appliances of whatever description in tow of vessels.
- 3. Throwing overboard earth, ashes, cinders, or articles of any kind into canal waters at any point during transit from sea to sea.
- 4. Emptying or letting oil, gas, heavy oil, oil fuel, scouring, cleansing water, or flow from tanks having contained such product,s loading, unloading, and, generally, handling of liquid fuel must be so carried out as to avoid any fuel leaking into canal waters, failing which the SCA reserves the right to stop such operations until the necessary repairs shall have been effected.
- 5. Picking up, without the direct intervention of the SCA's officials, any object that may have fallen into canal waters.

Whenever any object or merchandise whatsoever falls overboard, it must be immediately reported to the SCA.

Accidents.—Whenever a vessel underway is accidentally stopped it must, if other vessels are following, attract their attention by making the sound signal described in the SCA manual. At night, in addition, the white stern light must be replaced by a red light.

In case of grounding, the master must immediately hoist the signal and send a radio message stating whether a tug is required or not; if required, whether or not passage is clear for the tug and whether lightening is necessary, etc.

When a vessel runs aground, the SCA's officials are alone empowered to order and direct all operations required to get the vessel afloat and, in case of need, to get it unloaded and towed.

All attempts on the part of other vessels to get off a vessel aground are strictly prohibited.

Whenever a collision appears probable, vessels must not hesitate to run aground, should this be necessary to avoid it.

Suez Canal tonnage and dues.—The tonnage on which all dues and charges to be paid by vessels, as specified in these regulations, is the net tonnage resulting from the system of measurement laid down by the International Commission held at Constantinople (Istanbul) in 1873 and duly entered on the special certificates issued by the competent authorities in each country.

For further information on tonnage and dues, Rules of Navigation issued by the SCA should be consulted.

Searchlights.—Vessels must satisfy the officials of the SCA that they are equipped with an adequate searchlight and overhead lighting. Night transit may be suspended in case of breakdown or inadequate or defective functioning of this apparatus.

The searchlight is to be placed on the bow in the axis of the vessel and must show the canal clearly 1,500m ahead, and be built so as to meet the following criteria:

- 1. The searchlight is to be able to be operated both horizontally and vertically.
- 2. The front glass must be of a hardened type that can stand rapid cooling.
- 3. The reflector must be in two halves of precise ground glass mirror of highest quality or of polished aluminum having at least 95° of the reflective ability of the glass mirror.
- 4. The two halves of the reflector can be brought together to make a single reflector light and can be separated to give two separate light beams each of 5° in the horizontal, with a dark sector of 0° to 10° .
- 5. The reflector's body must be provided with a vent on which a flexible hose can be fitted to dissipate the heat.
- 6. The searchlight must be equipped with two lamp carriers which can be turned into position to let the lamps in the focus of the reflector.
- 7. The electric system must be of the first class marine type. The power of the incandescent lamps must be 2,000 watts for ships up to 30,000 grt and 3,000 watts for ships exceeding 30,000 grt or any type of lamps, such that the luminous intensity not less than 3 x 10 candle power.

Vessels carrying petroleum, LPG, LNG, or inflammable substances or vessels not gas-free, must have a gas tight searchlight.

On board electrically-powered vessels or vessels having electrically-powered gear, the number of generators and their individual power output must be sufficient to ensure uninterrupted functioning of the searchlight in the event of a power failure.

No exception to this rule will be allowed, except when there is an independent generator and circuit on board specifically set apart for the searchlight. All electrical cable, and fixtures for the searchlight, are to be of a permanent nature, insulated, and gas tight.

Vessels whose bulbous bows are less than 3m below sea level, and all LNG or LPG carriers, must provide their own searchlights.

Two shore electricians must be embarked to operate search lights during the transit, whetherthey are hired or are provided by the vessel; a sheltered place is to be provided for them.

Recently, a new magnetically-mounted searchlight was authorized. Vessels using this facility are required to be fitted with an unpainted steel plate platform, square or round of 0.75m side or diameter, placed on the centerline on the upper part of the stem.

Overhead lights, visible from all points of the compass and powerful enough to light up a circular area of about 200m diameter around the vessel, are required.

Vessels are also required to illuminate their funnels to aid identification.

Part E. Suez Canal Transit Requirements

1.6 Advance notification of transit.—The Suez Canal Authority (SCA) requires 4 days advance notice from vessels that want to join a convoy to pass through the Suez Canal.

Vessels possessing special characteristics and wishing to transit the canal should submit a request well in advance. The message must contain the vessel's name, call sign, nationality, type, draft on day of transit, SCGT, and deadweight tonnage.

Notice of cancellation or alteration of passage must be given at least 24 hours ahead or a fine will be levied. Vessels arriving without booking ahead will join the convoy if traffic in the canal allows or they may join the next convoy.

Information required in advance of arrival.—The following information should be sent to the SCA through "SUQ" preferably, or through the vessel's agent or diplomatic representative, at least 48 hours prior to arrival:

- 1. Type of vessel, its nationality, and name (with former name, if any).
- 2. Suez Canal Gross Tonnage and Suez Canal Net Tonnage.
 - 3. International grt, nrt, and dwt.
 - 4. Owner's name and charterer's name, if appropriate.
- 5. Whether vessel intends to transit canal or stop in the harbors, including the duration of stay in harbor.
- 6. ETA Port Said (Southbound) or Port Suez (Northbound).
- 7. Date of last transit, if any, and any changes to vessel's particulars; if none state: "Particulars-no change."
 - 8. Nature and quantity of cargo.
 - 9. Quantity and IMO class of any dangerous cargo.
 - 10. Number and nationalities of crew and passengers.

Information to be passed to the SCA on arrival.—The harbor office should be contacted on VHF when the vessel is:

- 1. About 15 miles from Fairway Lighted Buoy off Port Said (31°21.3'N., 32°20.7'E.).
- 2. About 5 miles from Suez Canal No. 1 Lightfloat in the Suez Bay approach (29°40'N., 32°32'E.).

The following information should be passed at that time:

- 1. Position.
- 2. Vessel's name.
- 3. Call sign.
- 4. Suez Canal Official Number.
- 5. SCGT and Deadweight Tonnage.
- 6. Draft.
- 7. Whether vessel is loaded or in ballast.
- 8. Nature of cargo.

In addition, vessels transiting the canal for the first time should state:

- 1. Date of building.
- 2. Whether Suez Canal Tonnage Certificate is held and, if so, its date of issue.
 - 3. Call sign or official number.
 - 4. Length overall.
 - 5. Beam.
 - 6. Type of engines.

Documents.—The following documents must be readily available:

- 1. Suez Canal Special Tonnage Certificate.
- 2. Certificate of registry.

- 3. Statistical declaration.
- 4. Extract from any of the vessel's official documents and information concerning her type and cargo.
- 5. Declaration concerning the use of double bottom tanks and the lower part of high tanks.
 - 6. Declaration concerning vessels in ballast.
 - 7. Declaration of state of navigability.
 - 8. The last classification certificate issued.
 - 9. Any other information relevant to the vessel's transit.

Pre-transit procedures.—All vessels ready to enter the canal must have their ladders and jib booms run in, their boats swung in and any derricks, obstructing the view forward, lowered.

Vessels shall have at least six flexible floating mooring lines, in good condition, fitted with eyes. Vessels equipped with tension mooring wires may reduce this number to four. Any mooring lines likely to produce sparks are forbidden on board tankers or any vessels carrying inflammable substances.

Vessels must be equipped with a rudder angle indicator and an engine RPM indicator in the wheelhouse, easily seen by the pilot.

The bow anchors must be ready to let go. Prior to entering the canal, it must be ascertained that main engines, steering gear, engine order telegraph, rudder angle and RPM indicators, VHF, and radar are in good working order.

Vessels in ballast must fill spaces used for carrying water ballast as directed by the SCA.

Deck cargo is to be stowed in a way so as to provide a clear view from the navigating bridge while transiting the canal, as well as not to affect the vessel's stability.

Mooring boats must be in constant readiness for lowering to run the hawsers to the mooring bollards without delay. The number of mooring boats required is based upon the vessel's SCGT. Vessels hire mooring boats from a mooring company approved by the SCA, as follows:

- 1. Vessels under 2,500 SCGT—one mooring boat or one motor boat.
- 2. Vessels from 2,500 to 30,000 SCGT—one motorboat and one mooring boat, or two mooring boats.
 - 3. Vessels over 30,000 SCGT—two motor boats.

Masters may request additional boats. The lifting appliances handling mooring boats must have a Safe Weight Limit of at least 4 tons, and must not be placed so far aft that the boat and crew are exposed to the ship's propellers.

Part F. Suez Canal Convoy System

1.7 Transit through the Suez Canal is operated on a convoy system. The Southbound and Northbound Convoys are usually timed so that they will pass in the El-Buheira El-Murra El-Kubra (Great Bitter Lake) area.

Vessels will be escorted by tugs, as follows:

- 1. Loaded vessels of less than 130,000 dwt will be escorted by one tug if the SCA finds it necessary for technical reasons or when the vessel's draft is greater than 14.3m.
- 2. Loaded vessels from 130,000 to 170,000 dwt will be escorted by one tug.
- 3. Loaded vessels over 170,000 dwt will be escorted by two tugs.

- 4. Vessels in ballast over 165,000 dwt will be escorted by one tug.
- 5. LPG and LNG vessels over 20,000 SCGT and up to 80,000 SCGT will be escorted by one tug.
- 6. Vessels in ballast with a beam of over 66.5m, up to a beam of 68.6m, will be escorted by one tug.
- 7. Vessels in ballast with a beam over 68.6m will be escorted by two tugs.

The above-mentioned vessels have to prepare two polypropylene ropes of 16-inch circumference to join the stern to the tug during stopping operations. The ropes should be eyespliced to fit in the quick release hook on the tug and with adequate length to give a distance between fore of the tug and stern of vessel at about 50m.

On the vessel, these ropes will be made fast on port and starboard stern bitts. The eyes will be hanging over the stern about 2m above the water and lashed with rope stoppers to break loose when necessary. The SCA may impose mandatory tug escorts in the following instances:

- 1. The Suez Canal Authority may require any vessel to take a tug or tugs through the canal, when in its judgment such action is necessary to ensure safety to the vessel or to the canal.
- 2. All LNG and LPG vessels of over 80,000 SCGT. It is also requested that a steering light be fitted on the extremity of the tanker's bows.
- 3. Any vessel without mechanical power, or the machinery of which are/or become disabled, or steers badly, or who is liable to become unmanageable for any reason, shall be towed through the canal.
- 4. Vessels who, owing to deck cargo, containers, cranes or constructions, have an obstructed view from the wheelhouse and wings.
- 5. Vessels with defective indicators or without, on their second trip through the canal.
 - 6. Vessels unable to use one of their two anchors.

At Port Said, tugs maybe placed at the disposal of masters if the SCA deems it necessary. Vessels maneuvering in the harbor are required to provide their own hawsers.

Wire tow-ropes are not allowed. The SCA may order that certain defective vessels, or vessels carrying dangerous cargoes, shall be towed or convoyed in the canal by one of the SCA's tugs.

With the exception of certain cases involving fire, grounding, etc., the master of a vessel utilizing a tug placed at its disposal has the exclusive direction and control of the maneuvering of both the vessel and the tug.

Shipowners are authorized to have their vessels towed or convoyed by their own tugs, or tugs belonging to third parties, upon their entire responsibility; such tugs must be approved by the SCA.

Group A is made up of vessels in Port Said. Vessels in this group enter the canal at the S end of Port Said Harbor. The speed of transit 14 km/hour (7.6 knots).

Group B is made up of vessels (third and fourth generation container vessels; VLCCs in ballast; vessels with a draft of over 11.6m; LPG, LNG, and non-gas-free vessels, whether loaded or in ballast; and LASH vessels (over 35,000 SCGT)) anchored in North Anchorage N of Port Said. The speed of transit is 14 km/hour (7.6 knots). Vessels in Group B enter the

buoyed approach fairway of the East Channel in position 31°22'N, 32°23'E, known as Km 135, and proceed via Port Said E branch.

Group C is made up of vessels in the South Anchorage that will enter through Port Said West Channel in time to join Group B at Km 17.

Sometimes, if the intensity of traffic warrants, another Southbound Convoy (N2) is formed.

The following vessels are not permitted to join this Southbound Convoy (N2):

- 1. Single bottom tankers carrying liquid bulk chemicals.
- 2. Warships.
- 3. LNG vessels.
- 4. LPG vessels.
- 5. Vessels carrying radioactive materials.
- 6. Vessels carrying deck cargo more than allowed.
- 7. Vessels with a beam of over 45m.
- 8. Vessels with a draft exceeding 11.5m.
- 9. Vessels over 90,000 SCGT.
- 10. Tankers, with single or double bottom, carrying bulk liquid chemicals with a -23°C flashpoint.

Southbound Convoy schedule.—By 1900 vessels (both Group A and Group B) must have arrived in the Port Said Anchorage Areas and be declared ready for transit by the agent. Convoy N1 proceeds to the canal entrance at about 0100, with vessels able to join it until 0100.

Vessels of under 5,000 tons follow behind Group B and may join up to 0600.

Group A proceeds as soon as the last vessel of the Northbound Convoy has entered the E channel at Km 17.

Vessels of Group B, headed by the container ships, enter the E channel at Km 135 as soon as the last vessel of the Northbound Convoy has passed.

From Km 17, the Southbound Convoy (NI) normally proceeds with Group A leading.

The Southbound Convoy has a free run to Bitter Lakes heading via the E branch at El Ballah (Km 51 to 61), the E channel in Lake Timsah (Km 79), the W channel at Deversoir (Km 95 to 103) then anchoring on the W side of the channel through El-Buheira El-Murra El-Kubra (Great Bitter Lake)

When the Northbound Convoy has passed in the Bitter Lakes, the Southbound Convoy proceeds, with Group B leading.

The second Southbound Convoy (N2), the one that is formed when traffic condition demand, as above, leaves Port Said between 0630 and 0900. The convoy is required to tie-up in the W branch at El Ballah until the Northbound Convoy has passed.

Vessels in this convoy are subject to the limitations in the Beam and Draft Tables given previously.

The latest time for vessels to arrive in the Port Said Anchorage Areas and to be declared ready for transit by the agent is 0300.

The Northbound Convoy consists of two groups ,which are Group A and Group B.

Group A is made up of two parts, A(1) and A(2), as follows:

1. A(1) is comprised of third and fourth generation container ships, LPG and LNG (both loaded or non-gas-free), and LASH vessels over 35,000 SCGT.

2. A(2) is composed of loaded tankers and heavy bulk carriers.

Group B is composed of vessels anchored in the Suez Anchorages. The speed of transit for both groups is 13-14 Km/hour (7-7.6 knots).

To be considered a "heavy bulk carrier" for the transit of Suez Canal, the bulk carrier has to have a draft of more than 11.6m or have a length between perpendiculars of greater than 289.7m.

Northbound LPG and LNG vessels, for safety consideration, are included in the "tanker" group; consult the Dangerous Cargoes Appendix to the SCA Rules of Navigation held by the pilot. Vessels carrying chemicals in bulk are considered part of this group only if they are loaded.

Northbound Convoy schedule.—By 0100, vessels in Group A must have convoyed at the anchorage and be declared ready for transit by their agents.

By 0300, vessels in Group B must have arrived in the waiting area SE of Newport Rock Channel and be declared ready for transit by their agents.

At 0615, the leading vessel of Group A (1) enters at Km 160. At 0700, the leading vessel of Group A(2) enters. Group B follows, with a cut-off time of 1130.

The Northbound Convoy usually proceeds without stopping via the E channel off El-Kabrit, the E channel through Great Bitter Lake, the E branch at Deversoir, the E channel in Lake Timsah, the E branch at El Ballah (Km 61 to 51), and then from through the E channel to the Mediterranean Sea.

It the Northbound Convoy has to stop in the Bitter Lakes due to traffic problems with the Southbound Convoy or any other emergency, container vessels leading the convoy will drop anchor in the northernmost of the E anchorage areas of Bitter Lake E dredged channel assisted by tugs. Super tankers and heavy bulk carriers following the VLCCs will make fast in El-Kabrit E branch N berths.

Vessels in Group B with drafts over 10.7m will make fast in El-Kabrit E branch. Vessels with drafts less than 10.7m will proceed through Kabrit branch to the E anchorage area of Bitter Lakes if the E branch is not clear.

Part G. Suez Canal Pilotage

1.8 Pilotage is compulsory for all vessels, whatever their tonnage, when entering, leaving moving changing berth or shifting on Canal Waters or Port Said and Port Suez harbors. Any exception must be explicitly authorized by the Suez Canal Authority. However, the Suez Canal Authority reserves the right to assign a tug master on board vessels under 1500 gt, and a coxswain on board vessels under 800 gt, instead of a pilot.

Navy ships and vessels carrying dangerous cargo must have a pilot, regardless of their tonnage.

Masters are held soley responsible for all damage or accidents of whatever kind resulting from the navigation or handling of their vessels directly or indirectly by day or night.

When a vessel is transiting the canal, the Master or the Master's qualified representative should be present at all times on the bridge. The Master or the Master's qualified representative is to keep the pilot informed of any individual peculiarities in the handling of the vessel, thus permitting the pilot to better navigate and move the vessel.

The duties of pilots commence and cease at the entrance buoys of Port Said and Port Suez. The pilot only gives advice on maneuvering the vessel, course to steer, etc. The pilot puts at the disposal of the Master the experience and practical knowledge of the canal, but as the pilot cannot know the defects or difficulties of maneuverability for every vessel. This ressponsibility falls completely upon the Master.

It is the responsibility of the Master, taking into account the indications given by the pilot, to give the necessary orders to the helm, to the engines, and to the tugs. However, in the interest of rapid maneuvering, if the Master prefers that the pilot give orders directly, then those maneuvers carried out by the pilot are still considered as orders of the master, and the responsibility of the Master as well.

The pilot has to ensure that the vessel abides by:

- 1. The articles of Rules of Navigation.
- 2. The orders of transit given by movement control.

Pilots are employed in four stages.

For southbound vessels pilotage is, as follows:

- 1. From the outer buoys off Port Said to the harbor or, for vessels using Port Said Eastern Branch, from the waiting anchorages to the canal entrance.
- 2. From Port Said Harbor, or the entrance to Port Said Eastern Branch to Ismailia.
 - 3. From Ismailia to the outer buoys off Port Tewfik.
- 4. From Port Tewfik to the S end of Newport Rock Channel.

For northbound vessels, pilots are engaged, as follows:

1. At the anchorage S of Conry Rock, solely for VLCCs, third generation container vessels, and vessels with drafts over 11.6m.

Other vessels engage the pilot in the waiting area N of the anchorages mentioned above. These vessels are usually piloted to a waiting anchorage before proceeding with the convoy.

- 2. From the anchorages, for the canal as far as Ismailia.
- 3. From Ismailia to Port Said.
- 4. From Ismailia through E or W Branches to Km 80.

Additional pilots will be assigned to vessels in the following situations:

- 1. Vessels with a SCGT exceeding 80,000 tons.
- 2. Vessels with a poor view from the bridge.
- 3. Vessels, which due to slow speed or other causes, that have to transit the canal in stages.
- 4. Vessels that do not have suitable accommodations for the pilot to rest when not underway.
- 5. Third and fourth generation container vessels and LASH vessels of 35,000 SCGT or greater.
- 6. Masters may request an additional pilot or the SCA may assign one if it deems it necessary.

The signal requesting a pilot should be hoisted 3 hours before the expected time of getting underway.

See Part C, Suez Canal Signals, for specific signals. Pilots for navigation in the Suez Canal are due on board 1 hours 30 minutes after the signal has been hoisted. Pilots for proceeding to sea or for changing berth are due 30 minutes after the signal has been hoisted.

Upon sighting the signal that a pilot is coming out, vessels must make ready to bring the pilot aboard and enter the canal without delay. A vessel at anchor in a waiting area must



Suez Canal—North Entrance

shorten its cable and make a lee for the pilot launch to come alongside.

Accommodation ladders should be rigged for use by the pilot. Should the accommodation ladder be situated near the vessel's propeller, a pilot ladder should be rigged amidships.

Vessels with a high freeboard should provide a mechanical hoist for the pilot. A ship's officer should be in attendance when the pilot boards.

If a pilot's services are dispensed with after arrival on board or the time of departure be postponed, or if a pilot sails with a vessel due to heavy weather or due to vessels requests, additional charges will be made.

A spare cabin or space should be set aside where the pilot can rest during the vessel's waiting period. Vessels unable to provide this space will be subject to delays and extra pilotage dues.

In the event of the pilot being suddenly unable to go on with pilotage duties, the Master must reduce speed and make fast, if in the canal, or anchor, if in the lakes. Additionally, the Master must warn the vessel astern of the intended maneuver of the vessel by the visual and sound signals described in the SCA

manual and also send an urgent radio message to Ismailia Radio Station.

Part H. General Description

1.9 Port Said (Bur Said) (31°16′N., 32°18′E.) was founded in 1859, when the Suez Canal was inaugurated. It is situated largely on man-made land; a low sandy strip separating the Mediterranean Sea from Lake Al-Manzilah. It lies at the N entrance to the Suez Canal. Port Said is described in Pub. 132 Sailing Directions (Enroute) Eastern Mediterranean.

Several pontoon bridges, bridges, submarine pipelines, ferries, and cable areas cross the channel at various places along the canal, and may best be seen on the appropriate chart.

The Suez Canal Bur Said West Branch is entered between two lighted buoys moored at the S end of Husein Basin. The Bur Said Bypass, also known as the Suez Canal East Branch, enters the Mediterranean Sea about 2.5 miles SE of the **Bur Said High Light** (31°16′N., 32°19′E.).

Except for the areas mentioned and noted on the chart, the canal was dredged to a centerline depth of 20.5m in 1994.

Bur Said Bypass and Bur Said West Branch are straight, from sea or from about Km 4, respectively, to their junction at Km 17. The Bur Said West Branch has been dredged to a depth of 15.5m to Km 17.

From Km 17 to El-Qantara, about 15 miles S, the canal is straight and passes through what was formerly the bed of Buhayrat Al Manzilah (Lake Manzala).

On the E side, this lake is now a dry, flat, sandy plain, scarcely higher than the level of the canal; the W side is slightly lower and receives the waters of the Nile through various channels.

The E bank of the canal is being constantly increased by the deposit of dredged material. The W bank is formed of the black sandy mud and clay from the lake bottom.

From El-Qantara to **Buheiret El-Timsah** (30°35'N., 32°18'E.), a distance of about 17 miles, the canal passes through low sand hills until it reaches the depression near El-Ballah. About 2 miles N of El-Ballah, the canal runs S in two branches for about 5.5 miles.

The canal through the lake has been sufficiently widened to permit turning and anchoring.

El-Ballah Bypass, also known as El Ballah Eastern Branch, is a straight cut between Km 51 and Km 60. El Ballah West Branch has dredged depths of 15.5 to 18.5m, and is normally used by the Southbound Convoy (N2), which ties up here to let the Northbound Convoy pass. There are 15 berths with shore bollards situated on the E side of El Ballah West Branch.

Buheiret El-Timsah (Lake Timsah) lies almost in the center of the canal. Timsah West Branch, marked by lighted buoys through the lake, has been dredged (1994) to a least depth of 15.5m.

Only vessels with a draft not greater than 5.5m are permitted to anchor between this above area and the shore NW. Six designated anchorage berths, best seen on the chart, are located in Timsah West Branch.

Timsah Eastern Branch is cut on a curve E of Western Branch between Km 76 and 82; in 1994, it had been dredged to a depth of 20.5m.

1.10 Ismailia (El-Ismailiya) (30°35'N., 32°17'E.) (World Port Index No. 48050), an intermediate port of the Suez Canal situated on the N shore of Lake Timsah, is the Control Center of the Suez Canal Authority. Ships transiting the canal change pilots at this port. There is quayage for lighters in the harbor.

A war memorial stands on the summit of Jabal Maryam, on the W side of the canal abeam Km 82.

Between Tusun and Km 93, 3.5 miles S, the canal runs straight, through compact sand or clay which is not hard enough to be dangerous to vessels.

From Km 93, Difirswar Bypass (Deversoir Bypass) divides the channel into two parts to pass through the Bitter Lakes. The E branch is cut E of the original canal.

The West Branch is dredged to a depth of 15m while the East Branch is dredged to a depth of 19.5m. There are plantations of trees on the W bank, along with a signal station at Difirswar (Deversoir).

El-Buheira El-Murra El-Kubra (Great Bitter Lake) and **El-Buheira El-Murra El-Sughra** (Little Bitter Lake) (34°15'S., 32°33'E.) occupy a depression formerly connected with Bahr El-Qulzum (Suez Bay). Together, they extend about 19 miles

in a N to S direction, with a greatest width of about 6 miles. The lakes are separated by a point on which is situated the El-Kabrit Signal Station.

The channels through El-Buheira El-Murra El-Kubra connect the Difirswar Bypass to the El-Kabrit Loop and are marked by buoys. The E branch was dredged to 20.4m in 1994, while the W branch is maintained (1995) to a depth of 15m.

There are dredged anchorage areas on either side of the channels dredged through the lake, the boundaries of which are marked by buoys. The Eastern Anchorage is for the use of northbound vessels, while the Western Anchorage is used by southbound vessels. Each anchorage is sub-divided into several smaller anchorages of varying depth.

These smaller anchorages are numbered, are prefixed with an E or W, and are best seen on the chart. An anchorage for vessels with a maximum draft of 4.8m is located NE of Anchorage E-2 and may best be seen on the chart.

Abu Sultan Quay, located at the NW corner of the larger lake, about 2.5 miles ESE of the signal station at Difirswar, is protected by a detached breakwater which is in disrepair. Depths alongside are reported to be 1.5 to 2.7m.

Fanara Quay (30°17′N., 32°21′E.), about 7 miles SSE of Abu Sultan Quay, has a depth of 2.4m alongside.

El-Kabrit Loop connects El-Buheira El-Murra El-Kubra and El-Buheira El-Murra El-Sughra and was dredged (1994) to a depth of 20.5m in the E branch and 15.5m in the W branch. The channels are separated by a bank with depths of less than 2m, on which are located mooring posts.

The canal from El-Buheira El-Murra El-Sughra to El-Suweis (Suez), a distance of about 11 miles, trends S about 6 miles from the S end of El-Buheira El-Murra El-Sughra, then curves slightly E about 5 miles; it then curves gradually SW, past the area known as Port Tewfik, and into Suez Bay.

This part of the canal passes through hard, and sometimes rocky, ground. The rocky areas, where it would be dangerous for vessels to moor to the bank, are marked by buoys, and by red posts on the banks. At El Shatt, on the E bank between Km 157 and Km 158, there are wharves for lighters, about 0.3 mile long, with a depth of 2.4m alongside.

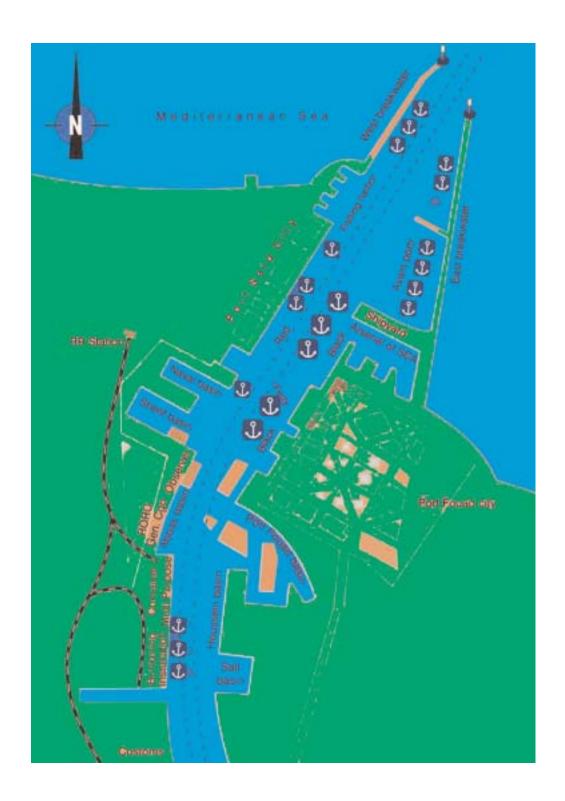
1.11 Port Tewfik (29°56'N., 32°34'E.) is that part of Suez Canal lying within 1 mile of its S entrance. South Basin, situated at the N end of the Port Tewfik "gare," has depths of 4.4 to 8.5m.

Gares are places at which the canal was widened to allow a vessel to secure to the bank so that another might pass.

North of South Basin is a channel dredged to a depth of 4m. The SCA signal station, which is a prominent metal structure with transverse arms, stands on the NW side of the S entrance to the canal.

Qad el-Marakib (29°56'N., 32°34'E.), within the S entrance of the canal at its E side, is a low, sandy point covered at high water. A drying sand bank extends about 0.5 mile W and SW of the point. A breakwater extending across the sand bank S of Qad el-Marakib, is connected to that point by sheet piling.

Wharves occupy the canal side of the point, the S half of which has a charted depth of 8.5m. Both Port Tewfik and Qad el-Marakib will be described with As Suways in paragraph 1.14.





Passing Ismailia

Birket Misalla Light is shown from a beacon standing 2 miles SE of Qad el-Marakib. A landing strip and a beacon are located 0.5 mile NNW and 1 mile NW, respectively, of the light.

Tides—Currents.—From November to April, the general set of the current between Port Said and El Buhera El-Murra El-Kubra is N; from June to October it is S.

The rate of the current depends upon any variation in the height of the level of the Mediterranean Sea, which may increase or change the direction of the periodical canal current.

The average rate of the current is seldom more than 1 knot; it varies from 0.5 to 2 knots, lessening towards El-Buhera El-Murra El-Kubra, although a N current, with a rate of 3 knots, has been reported (1998) to exist S of El-Buheira El-Murra El-Sughra.

There are no perceptible tidal currents between Port Said and Buheiret El-Timsah, nor are there any in Bur Timsah or in El-Buhera El-Murra El-Kubra.

Strong S winds raise the water level in Suez Bay, which affects the currents in the canal. The greatest rate, about 1.75 knots, is attained near El Kubra, Km 149. During strong S winds, the N current attains a rate of 2.5 knots at springs.

Off South Basin, care must be taken to guard against a strong current setting across the canal, frequently opposing the current in the canal.

Part I. Anchorage Areas

1.12 The anchorages given below are used by vessels awaiting transit of the Suez Canal. Regulations for their use are detailed in the preceding sections. Anchorages within the canal proper, including Buheiret El-Timsah and El-Buhera El-Murra El-Kubra are given in Part H, General Description. All of the anchorages described below are best seen on the appropriate chart.

Off Port Said, two anchorages are available. North Anchorage, with general depths of 14.2 to 17.2m, over a mud

bottom, good holding ground, is used by third generation container ships, VLCCs in ballast or partially loaded, and vessels with drafts of over 11.6m. Eight berths are charted here, each with a radius of 750m; they are numbered, and are prefixed with the letter V.

South Anchorage, which will accommodate vessels with drafts of 11.6m or less. Fifteen berths are charted, each of which has a radius of 500m; they are numbered, and are prefixed with the letter C. The anchorage offers charted depths of 11.7 to 15.7m, over a bottom of mud, good holding ground.

Anchorage is prohibited within a charted Prohibited Anchorage Area W of North Anchorage and South Anchorage. Anchorage is also prohibited between the E limit of the two anchorages and Bur Said East Branch.

See Pub. 132, Sailing Directions (Enroute) Eastern Mediterranean for details on the Port Said anchorages.

Off Suez Bay, nine charted anchorage berths, located SE of Conry Rock, are available to northbound VLCCs, bulk carriers, third generation container vessels, and vessels with drafts greater than 11.6m. The berths are numbered and also prefixed with the letter V.

All other northbound vessels should anchor in the charted waiting area N of Conry Rock. Anchorage is prohibited in the charted area W of the waiting area.

A dangerous wreck lies on the W edge of this area, $1.5\,\mathrm{miles}$ N of SC No. 2 Lighted Float.

1.13 Suez Bay (Bahr el Qulzum) (29°54'N., 32°32'E.), extending about 4.5 miles S from its head, is entered between **Ras el-Adabiya** (29°52'N., 32°30'E.) and **Ras Misalla** (29°49'N., 32°37'E.).

The Suez Quarantine Station, where there is a pier with a flagstaff at its head and a conspicuous water tower, lies about 5.5 miles ENE of Ras Adabiya.

Large expanses of reefs border the sides of the bay, which should not be approached without local knowledge.

The shores of Suez Bay are low and sandy, except to the SW, where Jabal Ataqah ascends from the shore to a maximum elevation of 570m.

Eastward of this mountain range and on the N side of the bay is a desert plain, with the town of Suez still farther E on a spit of the desert.

On the E side of the bay a plain, mostly sand, extends about 12 miles inland in a SE direction, gradually rising to moderately high hills.

Along the N side of the bay are numerous storage tanks located up to 2.5 miles W of As Suways, as well as two conspicuous chimneys.

A cable area lies on the W side of the bay, and may best be seen on the chart.

Depths—Limitations.—Depths in the middle of the bay range from 11 to 18.5m, mud and clay. There are numerous detached patches of 6.5m or less scattered throughout the bay, as well as occasional drying patches.

Fringing shoal flats and reefs front the sides of the bay, extending as far as 1.5 miles offshore. Lights and lighted buoys in Suez Bay may be difficult to make out, especially if there is much shipping in the bay.

Qala Kebira (29°55′N., 32°32′E.) is a coral shoal of less than 5.5m lying in the middle of the bay. Green Island, lying in the middle of the shoal, is marked by a light. Lighted buoys and beacons mark the extent of a shoal area around the island.

An offshore oil berth, located 1 mile NW of Green Island, is connected to the shore by a below-water pipeline. The berth can accommodate a vessel up to 60,000 dwt, with a maximum length of 228m and a maximum draft of 10.3m.

Newport Rock (Zenobia) (29°53'N., 32°33'E.) is a small knoll of soft mud with a depth of 6.7m.

Two conspicuous wrecks lie 0.6 mile NE and 1.5 miles E, respectively, of the beacon marking the rock. The first wreck appears as a vessel at anchor, listing to port, while only the masts of the second are visible.

Above and below-water wrecks, mostly unmarked by buoys, are scattered throughout the Suez Bay. The wreck positions are best seen on the chart.

There three main fairways in the approaches to Suez Bay are Eastern Channel, Western Channel, and Newport Rock Channel.

Vessels entering the port from sea or leaving the port for sea should use Western Channel, except for vessels anchoring in Berths 1C and 2C, which should use Eastern Channel.

Vessels entering the canal from the port should use Western Channel, joining Eastern Channel SE of Green Island, except the vessels in anchorage berths 1C to 7C, which should proceed direct to the canal entrance.

Vessels entering the port from the canal should use Eastern Channel and then Western Channel, except for vessels anchoring in berths 1C to 7C, which may proceed directly to these berths.

Eastern Channel projects SSW and S from the lighted buoys marking the S entrance to Suez Canal, 0.5 mile SW of Port Tewfik to Newport Rock, 2.5 miles S. The channel is maintained to a depth of 23.5m; anchorage is prohibited within it.

Western Channel lies NW, W, and S of Green Island. Newport Rock Channel projects 2 miles S from the S end of Eastern Channel abeam Newport Rock. The channel is reported to be maintained to a depth of 23.5m.

Pilotage.—Pilotage is compulsory. See Part G, Suez Canal Pilotage, for details.

Vessels are recommended not to enter Suez Bay when the pilot boat is prevented from coming out due to foul weather. However, masters of vessels may call the SCA via radio to make other arrangements.

Regulations.—All ships underway in the roads shall conform to the International Regulations for Preventing Collisions at Sea. Other regulations are, as follows:

- 1. Navigation shall be limited to approved channels only.
- 2. Crossing or overtaking in the channels is expressly forbidden.
- 3. Vessels must proceed with caution and at reduced speed.
- 4. Vessels must not anchor except in designated anchorages.
- 5. Vessels proceeding S in Eastern Channel have priority. Northbound vessels should wait outside until the channel is clear.

Anchorage.—Numerous anchorage berths, allocated by the SCA, are available in Suez Bay, and are best seen on the chart.

Caution.—A dangerous wreck, with its masts visible and marked close E by a lighted buoy, lies in Berth 7B.

As Suways (Port Suez) (29°58'N., 32°33'E.)

World Port Index No. 48040

1.14 Several berthing facilities are scattered about As Suways (Port Suez) and are described below.

Bur Ibrahim, the port for As Suways, is connected to the city by a causeway on which there is a railroad.

The harbor consists of a N basin and a S basin, separated by a central quay. The basins are fronted by breakwaters, through which there is an entrance 114m wide leading to the basins. An entrance channel to the basins has a least depth of 7.2m.

Range lights on the central quay, aligned 060°, lead into the harbor.

North Basin has over 737m of quayage with depths of 7.9 to 8.2m alongside. Outside this basin there are berths with at least 4m alongside.

South Basin, at the head of which there are drydock and repair facilities, has about 670m of quayage with depths up to 8.5m alongside.

The central quay has numerous berths with depths up to 8.5m. South Quay, lying on the SE side of South Basin, is built of stone, with depths of 5.3m alongside.

A floating dock, approached by a channel dredged to a depth of 10m, lies just S of South Basin, and may best be seen on the chart

Port Tewfik (29°56'N., 32°34'E.), on the W side W of the canal entrance, consists of South Basin, with depths of 4.4 to 8.5m alongside. A channel and basin dredged to a depth of 4m lie E of South Basin.

Qad el-Marakib, on the E side of the canal entrance, described earlier in paragraph 1.11, had a least depth of 8.5m in its S portion.

El-Mina El-Gadida (29°57'N., 32°32'E.) is the area located NW of Bur Ibrahim. It is fronted by a detached breakwater marked by a light at each end.

The W side of the area is enclosed by a breakwater extending S from Petroleum Basin toward the entrance W of the detached breakwater.

The W entrance has a depth of 10m; the maximum depth of the E entrance is 5.2m.

Petroleum Basin is enclosed by breakwaters, except on its S side. The approach channel has depths of 5.7 to 8.3m. Vessels are urged to contact the local authorities for the latest information on this basin before attempting to berth here.

An offshore petroleum terminal is available about 2 miles SW of the Petroleum Basin. It has been reported that one berth is operational, with an alongside depth of 11.5m, which will handle vessels up to 228m in length.

Aspect.—Conspicuous chimneys, 70m high, stand among storage tanks about 0.4 mile N of the basin.

Storage tanks extend along the N shore of Suez Bay for 1.5 miles W of Petroleum Basin.

A grey cooling tower and a chimney, both prominent, stand to the W of Petroleum Basin. A large factory and a green-grey concrete water tower stand 2 miles further WSW.

Signals.—During gales from the S, which are liable to occur from October to March, a black flag is displayed by day, and three red lights, disposed vertically, are exhibited at night, at the signal station near the S corner of South Basin.

When As Suways is closed because of bad weather, two black cylinders, disposed vertically, are displayed by day, and a green light between two red lights disposed vertically, are shown at night, at the signal station at Port Tewfik.

1.15 Gunet el-Adabiya (Adabiya Bay) (29°52'N., 32°28'E.) is entered NW of Ras el-Adabiya, in the SW part of Suez Bay. Its S and W shores are fringed with a coral reef, while the bay is encumbered with rocks and shoals.

El-Adabiya (29°52'N., 32°28'E.) (World Port Index No. 48045) lies in the SW part of Gunet el-Adabiya. Two quays extend SE from the shore about 1.5 miles WNW of Ras el-Adabiya. There is over 1,800m of berthing space, with alongside depths of 7.3 to 16.2m.

Gunet el-Adabiya affords good and sheltered anchorage, in depths of 8.2 to 14.6m, mud, about 1.5 miles WNW of Ras el-Adabiya.

Vessels anchor in Suez Bay in numbered berths as allocated by the SCA; these berths are best seen on the chart.

Vessels approach El-Adabiya with the head of the SW quay bearing 243°. When the light on Shab Ataqa is abeam, course may be changed as necessary for entering the harbor. Berthing at the wharf is restricted to daylight hours.

Ras el-Adabiya (29°52'N., 32°31'E.) is described in paragraph 2.2.